

Techniques for Handling Bias in Health Services Outcomes Research

National Conference

November 7 – 9, 2000
J. W. Marriott Hotel
Houston, Texas

Supported by:

DEPARTMENT OF VETERANS AFFAIRS
Health Services Research and Development Service



BAYLOR COLLEGE OF MEDICINE
Department of Medicine, Section of Health Services Research



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AGENCY FOR HEALTHCARE RESEARCH AND QUALITY



GENERAL INFORMATION:

Gain valuable, practical insight into 'Techniques For Handling Bias In Health Services Outcomes Research' at this national conference where researchers and experts in the field come together to discuss the newest and most up-to-date statistical techniques for handling bias.

Conference events begin the evening of November 7, 2000 with a pre-conference dinner that will highlight the conference agenda. David Kenny, PhD, Professor, University of Connecticut, and well-known expert in statistical analysis techniques will give a dinner address. He will take a "light-hearted" approach, discussing his experiences dealing with various sources of bias.

Conference Participants:

This conference is intended for health services researchers, clinical researchers, economists, statisticians, biostatisticians, and psychometricians. Maximum participation for this conference is 200, so early registration is encouraged.

What Will You Learn?

Conference goals include:

- 1) heightening health services researchers' awareness of selection, information, and confounding bias
- 2) providing information on the newest techniques for handling bias
- 3) demonstrating applications of these new techniques
- 4) providing the opportunity to interact and discuss bias problems with leading research methodologists.

Why is this conference needed?

Recent advances in statistical techniques and computing power have resulted in the development of advanced techniques for handling bias at the design and analysis phases of research. While health services researchers have always been concerned about sources of bias, their skill in the application of these more advanced techniques may need development. This conference will bring together leading specialists in sampling techniques, missing data analyses, measurement theory, and modeling techniques. Both beginning and methodologically-advanced health services researchers from all disciplines can learn about new and advanced methods for handling bias in outcomes research.

Objectives:

At the conclusion of the conference, the participant should be able to:

- Explain ways in which selection bias, information bias, and confounding may lead to spurious conclusions in outcomes research.
- Describe the advantages of using the most up-to-date statistical techniques for handling selection bias, information bias, and confounding.
- Identify leading specialists in techniques for handling bias.

Educational Methods/Evaluation:

Educational methods include lectures, group discussions, group breakouts, interactive participation. Evaluation by questionnaire will address program content, presentation, and possible bias.

Accreditation:

Baylor College of Medicine is accredited by the Accreditation Council for Continuing Medical Education to provide continuing medical education for physicians.

Baylor College of Medicine designates this continuing medical education activity for a maximum of 15 hours in category 1 credit toward the AMA Physician's Recognition Award. Each physician should claim only those hours of credit that s/he actually spent in the educational activity.

CONFERENCE TOPICS:

WHAT DO YOU DO WHEN:

- Randomization is not possible?
- Randomization does not work?
- Patients do not comply with study protocols?
- Your research must use data originally collected for administration or clinical purposes?
- Your intervention is for physicians, but your data come from patients?
- Patients fail to follow-up?

If you have questions such as these, this conference will help you. Experts will address general topics such as selection bias, information bias, and confounding. You will learn how to identify sources of bias in your research and how to address them using these specific techniques:

Bayesian Analyses

Instrumental Variables

Latent Variable Modeling

Mixture Modeling

Moderator/Mediator Variables

Multi-Level Modeling

Multiple Imputation Techniques

Propensity Scores

Sampling Techniques

Structural Equation Modeling

SCHEDULED SPEAKERS:

Speakers who have confirmed to date (in alphabetical order):

Cindy Christiansen, PhD, Associate Professor of Health Services, School of Public Health, Boston University, [Expert in Bayesian Analyses](#).

David J. Francis, PhD, Professor, Department of Psychology, University of Houston, [Expert in Latent Variable Modeling Techniques, Growth Curve Modeling, and Techniques for Identifying and Controlling for Selection Bias](#).

Constantine Gatsonis, PhD, Professor, Department of Biomedical Community Health, Brown University, [Expert in Random Effects Modeling](#).

Sander Greenland, PhD, Professor, Department of Epidemiology, University of California Los Angeles, [Expert in Observational Studies and Generalized Linear Models](#).

David Kenny, PhD, Professor, University of Connecticut, [Expert in Multi-Level Modeling, Structural Equation Modeling, and Techniques for Identifying and Handling Regression to the Mean](#).

Mark McClellan, PhD, Assistant Professor of Economics, Department of Economics, Stanford University, [Expert in the Analyses using Instrumental Variables](#).

Robert J. Miceli, PhD, Senior Director/Team Leader, Outcomes Research - Pfizer, Inc., [Expert in Research Design and Identification of Confounding Bias](#).

Linda Muthén, PhD, Director of Product Development for M-PLUS General Latent Variable Modeling Software, [Expert in the Application of Missing Data Analysis Techniques and Information Bias Handling Techniques](#).

Sharon-Lise Normand, PhD, Associate Professor of Biostatistics, Department of Health Care Policy, Harvard Medical School, Department of Biostatistics, Harvard School of Public Health, [Expert in the Application of Propensity Scores and Bayesian Analyses](#).

Mark V. Pauly, PhD, Professor of Health Care Systems, Public Policy and Management, Insurance and Risk Management, and Economics, Wharton School, Pennsylvania University, [Expert in Medical Economics](#).

Joseph L. Schafer, PhD, Associate Professor, Department of Statistics, Pennsylvania State University, [Expert in Multiple Imputation Techniques and General Linear Mixed Modeling](#).

Jeffrey A. Smith, PhD, Associate Professor, Department of Economics, University of Western Ontario, [Expert in Techniques for Identifying and Handling Selection Bias](#).

Alvin R. Tarlov, MD, Director of the Texas Institute for Society and Population Health at the James Baker III Institute for Public Policy at Rice University, Professor, University of Texas School of Public Health. [Expert in Measuring the Effects of Medical Services and Quality of Life](#).

POSTER ABSTRACTS:

Do you have a bias problem in your research?

Do you want some expert advice on handling it?

Submitting a poster will provide opportunities to discuss your work with experts. Poster presentations may be one of the following:

- 1) Description of a **dilemma** you have encountered in your work.
- 2) Demonstration of a **technique** you used to handle bias in your research.

During the poster presentation session, experts will view posters, offer advice and discuss different techniques that may help resolve the dilemma. To submit a poster abstract, use the submission form located on the next page and send it with an original typed version of the abstract (standard size type, 10-12 point), and a copy of the abstract on a diskette in Microsoft Word. E-mail submissions to writers@bcm.tmc.edu are also accepted. Abstracts (text only) are limited to 300 words.

POSTER ABSTRACT REQUIREMENTS:

Posters that describe a dilemma need to include:

1. Background information leading to the problem
2. Description of the problem
3. Pertinent questions about solving the problem

Posters that demonstrate a technique need to include:

1. Introduction
2. Methods
3. Results
4. Discussion

Poster abstracts must be postmarked on or before **July 20, 2000**. Letters informing researchers whether or not their abstracts were accepted will be mailed August 5, 2000.

POSTER ABSTRACT SUBMISSION FORM:

GENERAL INSTRUCTIONS – PLEASE READ CAREFULLY

Your typed abstract will appear in print exactly as submitted. All errors and misspellings are the responsibility of the author. The abstract must be typed single-spaced, clear and legible. The height of the letters must not be smaller than ten-point font. The abstract must contain: title of the poster, full names of authors with degrees and titles, institutional affiliations, city and state of first author, and text of the abstract.

Remember: Abstracts can demonstrate a technique or pose a research dilemma. Word limit for text of the abstract is 300 words.

Mailing Address of *FIRST AUTHOR*:

Last Name:_____ First Name:_____ Degree_____

Affiliation:_____ Department:_____

Street:_____

City:_____ State:_____ Zip_____

Country:_____ Telephone:_____ E-mail_____

Type of Poster Presentation (**Circle One**):

Dilemma Description

Technique Demonstration

Mail to:

**Department of Veterans Affairs
Medical Center
HSR&D Center of Excellence (152)
2002 Holcombe Blvd (Bldg 110T)
Houston, TX 77030
Attn: Kimberly Wristers, PhD**

Email: wristers@bcm.tmc.edu

DEADLINE FOR MAILING POSTER ABSTRACTS: JULY 20, 2000

SCHEDULE OF EVENTS:

PRE-CONFERENCE DINNER

Tuesday, November 7, 2000

6:00 PM to 9:00 PM

Keynote Speaker, David Kenny, PhD, Professor, University of Connecticut.

DAY ONE

Wednesday, November 8, 2000

8:00 AM to 4:30 PM

- Session I: State of the Science in Techniques for Handling Bias
Conference Goals
Definitions and Overview
Clarification of Terms
Interactive Participation
- Session II: Multidisciplinary Discussion of Hypothetical Grant Proposal –
Economists, Psychometricians, Statisticians, & Epidemiologists
Debate Bias Problems and Solutions

WINE AND CHEESE SOCIAL

6:00 PM to 8:00 PM

- Special Event: Meet the Experts
Poster Presentations

DAY TWO

Thursday, November 9, 2000

8:00 AM to 4:30 PM

- Session III: **Demonstration/Application of Techniques**
Case Studies
Demonstration of Techniques from Start to Finish
Theoretical Background
Interactive Participation
- Session IV: **Demonstration/Application of Techniques**
Case Studies
Demonstration of Techniques from Start to Finish
Theoretical Background
Interactive Participation
- Session V: Interactive Post-Conference Review
Future Direction of Research Recommendations

REGISTRATION AND ACCOMMODATIONS:

Registration Fees:

Conference registration fee includes all sessions, workshops, poster presentations, gourmet pre-conference dinner, continental breakfasts, coffee breaks, and a wine and cheese special evening event. To register, mail registration form and check to address listed on registration form by [August 31, 2000](#).

Registration Fee: \$210.00

A \$75.00 late fee will be charged for registrations received after August 31, 2000.

Lodging:

The conference will be held at the J.W. Marriott Hotel located in the heart of Houston's premiere uptown district, across from the famous Galleria Mall. The J.W. Marriott Hotel was the 1998 and 1999 winner of the Pinnacle Award and Meeting Planners Choice Award. This hotel has many amenities including a full size fitness center, sauna, indoor/outdoor pool, racquetball and basketball court. Spa and massage services are available for additional fees.

Each room is equipped with ISDN high speed internet access, three telephones with two separate phone lines, two televisions, Web TV, coffee maker, blow dryer, iron and ironing board and voice mail messaging system. The J.W. Marriott is located at 5150 Westheimer Road, Houston, Texas 77056.

Lodging Fees:

A block of rooms in the name of '[Bias Conference](#)' has been set aside at the J.W. Marriott Hotel. In addition, the J.W. Marriott can reserve lodging at three of their other hotel sites located within walking distance of the conference. These other locations include the Marriott Courtyard, Fairfield Inn, and Residence Inn. Lodging fees are not included in the conference registration fee. For all hotel room reservations, please call the J.W. Marriott Hotel 1-800-831-4004. A special room rate (\$149.00) at the conference site has been contracted. If you are traveling on federal travel orders, please inform the hotel. We recommend you reserve your room by September 15, 2000.

Houston Attractions:

Houston, the nation's fourth-largest city, is located on America's South Coast, 50 miles north of the Gulf of Mexico. Houston has two major airports, George Bush Intercontinental Airport and Houston Hobby Airport. Houston Hobby is closest to the conference site at the J.W. Marriott Hotel. The Marriott is within walking distance of The Galleria, the Southwest's premier shopping center. Set beneath spectacular glass atriums, this mall features over 300 specialty stores and an ice skating rink.

Houston's theater district, located in the heart of downtown, and its museum district, near the serenity of Hermann Park, enrich the cultural landscape. Houston's Alley Theater won the Tony Award for the best regional theatre. Houston also has a well-deserved reputation for fine ethnic cuisine. All conference attendees will receive a guide to local events and restaurants to help make their visit to Houston accessible and enjoyable.

REGISTRATION FORM:

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J.W. Marriott

Houston, Texas

Registration Deadline: August 31, 2000

Last Name
(please print)

First Name

Degree

Title

Affiliation

Address

City/State/Zip Code

E-mail

Phone

Fax

Please make check or money order payable to Baylor College of Medicine
and mail to:

**Department of Veterans Affairs
Medical Center
HSR&D Center of Excellence (152)
2002 Holcombe Blvd (Bldg. 110T)
Houston, TX 77030
Attn: Mary Lonadier
Conference Coordinator
e-mail: malona1@earthlink.net**

CONFERENCE PLANNING COMMITTEE:

Conference Chair:

Kimberly Wristers, PhD, *Psychometrician, Center for Quality of Care and Utilization Studies, Health Services Research and Development Center of Excellence, Houston VA Medical Center; Assistant Professor, Baylor College of Medicine.*

Main Advisors:

Carol M. Ashton, MD, MPH, *Director, Center for Quality of Care and Utilization Studies, Health Services Research and Development Center of Excellence, Houston VA Medical Center; Professor of Medicine, Baylor College of Medicine.*

Nelda P. Wray, MD, MPH, *Chief, Section of Health Services Research, Department of Medicine, Baylor College of Medicine, Professor of Medicine and Medical Ethics, Baylor College of Medicine; Chief, General Medicine Section, Medical Service, Houston VA Medical Center.*

Conference Coordinator:

Mary A. Lonadier, *Conference Coordinator/Administrative Assistant, Center for Quality of Care and Utilization Studies, Health Services Research and Development Center of Excellence, Houston VA Medical Center.*

Scientific Advisory Committee:

Margaret M. Byrne, PhD, *Economist, Center for Quality of Care and Utilization Studies, Health Services Research and Development Center of Excellence, Houston VA Medical Center; Assistant Professor of Medicine, Baylor College of Medicine.*

Cindy L. Christiansen, PhD, *Senior Statistician, Center for Health Quality, Outcomes and Economics Research, VA Health Services Research and Development, Bedford MA; Associate Professor of Health Services, School of Public Health, Boston University.*

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Paul Swank, PhD, *President, innovative thinking, inc; Professor and Advanced Quantitative Methodologist, Center for Nursing Research, University of Texas – Houston.*

Administrative Support:

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Joyce McDaniel, *Assistant Director, Administration and Finance, Center for Quality of Care and Utilization Studies, Health Services Research and Development Center of Excellence, Houston VA Medical Center.*

Carol Soroka, *Conference Coordinator at Baylor College of Medicine, Office of Continuing Medical Education.*

POINT OF CONTACT

For more information about this conference, contact Kimberly Wristers, PhD at wristers@bcm.tmc.edu or 713/791-1414, ext. 5368.

Visit our website at

<http://www.hsrh.houston.med.va.gov/NationalConference>

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